

Application No. 09/830,794
Amendment Dated July 17, 2003
Reply to Office action of January 17, 2003

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-10 (previously cancelled)

11. (currently amended) A heavy duty liquid laundry detergent composition comprising a surfactant system, and a polymer, wherein the surfactant system comprises:

- a) the polymer is selected from the group consisting of modified polyamines, polyamide-polyamines, polyethoxylated-polyamines, and mixtures thereof; and
b) the surfactant system comprises from about 0.1% to about 20%, by weight of the surfactant system of an alkyl benzene sulfonate surfactant, and wherein the surfactant system has a Hydrophilic Index, HI_C , of from about 8.0 to about 9.2, wherein

$$HI_C = \sum_y (\text{weight \% of surfactant } y \text{ in the surfactant system}) \times (HI_{Sy})$$

where HI_{Sy} is calculated for each of the surfactants in the surfactant system as follows:

$$HI_{Sy} = 20 \times \left(\frac{\text{the molecular weight of the hydrophilic portion of surfactant component } y}{\text{(the molecular weight of surfactant component } y)} \right)$$

12. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11 wherein surfactant system comprises surfactants selected from the group consisting of non-soap anionic, nonionic, cationic, amphoteric, amine, poly hydroxy fatty acid amines and mixtures thereof.

13. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11 further comprising a deterative amount of an enzyme selected from the group consisting of alkaline protease, mannanase, α -amylase variants, and mixtures thereof, by weight of the detergent composition of the pure enzyme.

Application No. 09/830,794
Amendment Dated July 17, 2003
Reply to Office action of January 17, 2003

14. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11, further comprising from about 2% to about 15% by weight of the composition of a fatty acid.

15. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11, wherein the surfactant system comprises from 10% to about 40%, by weight of the composition.

16. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 12, wherein the detergent composition additionally comprises adjunct ingredients selected from the group consisting of non-citrate builders, optical brighteners, soil release polymers, dye transfer inhibitors, polymeric dispersing agents, additional enzymes, suds suppressers, dyes, perfumes, colorants, filler salts, hydrotropes, antiredeposition agents, antifading agent, chelants, dye fixative agents, prill/fuzzing reducing agents, and mixtures thereof.

17. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11, wherein the detergent composition comprises no additional surfactants beyond those in the surfactant system.

18. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11, wherein the detergent composition additionally comprises a structurant which is present at from about 2.0% to about 6.0%, by weight of the composition.

19. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 18, wherein the structurant is selected from the group consisting of carboxylates, polycarboxylates, amino carboxylates, polycarboxylates, carbonates, bicarbonates, phosphates, phosphonates and mixtures thereof.

20. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11, further comprising sodium sulfate present at from about 1.0% to about 5.0%, by weight of the detergent composition.

21. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11, further comprising a citrate builder.

Application No. 09/830,794
Amendment Dated July 17, 2003
Reply to Office action of January 17, 2003

22. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11, wherein the surfactant system has a Hydrophilic Index, HI_C of from about 8.2 to about 9.1.

23. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 11, wherein the surfactant system has a Hydrophilic Index, HI_C of from about 8.4 to about 9.0.

24. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 13, wherein the enzyme is present in an amount of from about 0.0001% to about 1.5%.

25. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 13, wherein the enzyme is present in an amount of from about 0.00018% to about 1.0%.

26. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 13, wherein the enzyme is present in an amount of from about 0.00024% to about 0.5%.

27. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 15, wherein the surfactant system comprises from about 12% to about 35%.

28. (previously presented) A heavy duty liquid laundry detergent composition according to Claim 15, wherein the surfactant system comprises from about 15% to about 32%.

29. (currently amended) A heavy duty liquid laundry detergent composition comprising:

a) a polymer selected from the group consisting of modified polyamines, polyamide-polyamines, polyethoxylated-polyamines, and mixtures thereof; and

b) a surfactant system, wherein the surfactant system comprises from about 0.5% to about 19%, by weight of the surfactant system of an alkyl benzene sulfonate surfactant, and wherein the surfactant system has a Hydrophilic Index, HI_C , of from about 8.0 to about 9.2, wherein

$$HI_C = \sum_y (\text{weight \% of surfactant } y \text{ in the surfactant system}) \times (HI_{Sy})$$

Application No. 09/830,794
Amendment Dated July 17, 2003
Reply to Office action of January 17, 2003

where HI_{Sy} is calculated for each of the surfactants in the surfactant system as follows:

$$HI_{Sy} = 20 \times (\text{the molecular weight of the hydrophilic portion of surfactant component } y) / (\text{the molecular weight of surfactant component } y).$$

30. (currently amended) A heavy duty liquid laundry detergent composition comprising:

- a) a polymer selected from the group consisting of modified polyamines, polyamide-polyamines, polyethoxylated-polyamines, and mixtures thereof, and
- b) a surfactant system, wherein the surfactant system comprises from about 1% to about 18%, by weight of the surfactant system of an alkyl benzene sulfonate surfactant, and wherein the surfactant system has a Hydrophilic Index, HI_C , of from about 8.0 to about 9.2,
- wherein

$$HI_C = \sum_y (\text{weight \% of surfactant } y \text{ in the surfactant system}) \times (HI_{Sy})$$

where HI_{Sy} is calculated for each of the surfactants in the surfactant system as follows:

$$HI_{Sy} = 20 \times (\text{the molecular weight of the hydrophilic portion of surfactant component } y) / (\text{the molecular weight of surfactant component } y).$$
